Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims:

Listing of Claims:

1. (Currently amended) A dynamo-electric machine including a magnet for a magnetic field, comprising:

a tooth disposed so as to oppose the magnet at a predetermined gap being laminated in parallel with a direction of magnetic flux of the magnet;

a coil having at least part of the tooth disposed therein; and

a yoke disposed so as to oppose the magnet and being laminated in a direction different from a direction of a layer of the tooth,

wherein the yoke further includes an opening provided so as to face from a surface opposing the magnet toward an opposite surface, the tooth and the yoke are fixed to each other in a state in which at least part of the tooth is inserted into the opening and defines a shoulder and, in that a cross-sectional area perpendicular to a line of magnetic force of the tooth at a portion inserted into the opening when the coil is energized is larger than a cross-sectional area perpendicular to the line of magnetic force at a portion of the tooth stored in the coil,

wherein the tooth is formed by laminating a plurality of steel plates each including a first portion to be inserted into the opening, a second portion to be disposed in the coil, and a third portion to connect the first and second portions, and a length of the first portion in a direction perpendicular to the line of magnetic force is longer than a length of the second portion perpendicular to the line of magnetic force, and

wherein a height of a circumference of the opening of the yoke is equal to the height of the shoulder of the part of the tooth inserted into the opening.

2. (Canceled)

3. (Previously presented) The dynamo-electric machine according to Claim 1, wherein a plurality of teeth are provided, and the plurality of teeth are mounted to the yoke in a state in which the lines of magnetic force generated at respective

portions of the plurality of teeth stored within coils when the coil is energized extend in parallel with each other.

4. (Currently amended) The dynamo-electric machine according to Claim 3, wherein the cross-sectional area perpendicular to the line of magnetic force generated at the plurality of teeth at the magnet-opposed end portion of the tooth which opposes the magnet when the coil is energized is ~~smaller than~~ equal to the cross-sectional area perpendicular to the line of magnetic force at the plurality of teeth disposed in the coil.

5. (Previously presented) The dynamo-electric machine according to Claim 4, wherein a plurality of coils are provided and the plurality of teeth are at least partly stored within the plurality of coils, and

the plurality of coils are integrally molded so that the lines of magnetic force at respective portions of the plurality of teeth stored in the coils extend substantially parallel with each other when the plurality of coils are energized.

6. (Previously presented) The dynamo-electric machine according to Claim 5, wherein the magnet-opposed end portions of the plurality of teeth opposing respective magnets are disposed outside the plurality of coils,

a plurality of cores disposed in a vicinity of the magnet-opposed end portions of the plurality of teeth opposing the respective magnets are provided, and

the plurality of cores and the plurality of coils are integrally molded.

7. (Currently amended) A dynamo-electric machine having a magnet for a magnetic field, comprising:

a tooth disposed so as to oppose the magnet at a predetermined gap; ~~and~~

a coil having at least part of the tooth disposed therein, and

a yoke disposed so as to oppose the magnet, and including an opening provided so as to face from a surface opposing the magnet toward an opposite surface, the tooth and the yoke are fixed to each other in a state in which at least part of the tooth is inserted into the opening and defines a shoulder, and

wherein a cross-sectional area perpendicular to a line of magnetic force generated at a magnet-opposed end portion of the tooth opposing the magnet is ~~smaller than~~ equal to the cross-sectional area perpendicular to the line of magnetic force generated at a portion of the tooth to be disposed within the coil when the coil is energized,

wherein the tooth is formed by laminating a plurality of steel plates each including a first portion defining a shoulder and inserted into the opening, a second portion to be disposed in the coil, and a third portion to connect the first and second portions, and a length of the first portion in a direction perpendicular to the line of magnetic force is longer than a length of the second portion perpendicular to the line of magnetic force, and

wherein a height of a circumference of the opening of the yoke is equal to the height of the shoulder of the part of the tooth inserted into the opening.

8. (Currently amended) The dynamo-electric machine according to Claim 7, ~~further comprising:~~

~~a yoke to which the tooth is to be fixed;~~

wherein a plurality of teeth and cores are provided, at least part of respective teeth are stored within corresponding coils, respectively, and

the teeth are fixed to the yoke so that the lines of magnetic force generated at the portions of the respective teeth stored in the coils extend substantially parallel with each other when the coils are energized, and

the respective coils are integrally molded so that the lines of magnetic force generated at portions of the respective teeth stored in respective coils extend substantially in parallel with each other.

9. (Previously presented) The dynamo-electric machine according to Claim 8, further comprising:

a plurality of cores disposed in the vicinity of the magnet-opposed end portion opposing respective magnets of the plurality of teeth, wherein the magnet-opposed

end portions of the plurality of teeth opposing the magnets are disposed outside the respective plurality of coils, and

wherein the plurality of cores and the plurality of coils are integrally molded.

10. (Currently amended) The dynamo-electric machine according to Claim 8, wherein ~~the yoke is provided with openings formed from a surface opposing the magnet toward the other surface, at least part of the respective teeth is fixed to the opening; and~~

the cross-sectional areas of the respective teeth perpendicular to the lines of magnetic force generated at the teeth disposed inside the opening is larger than the cross-sectional area perpendicular to the lines of magnetic force at portions of the teeth stored within respective coils when the respective coils are energized.

11. (Currently amended) A dynamo-electric machine, comprising:

a yoke having an opening provided so as to face from a surface opposing a magnet toward an opposite surface, the yoke and a tooth are fixed to each other in a state in which at least part of the tooth defining a shoulder is inserted into the opening; and

a cross-sectional area perpendicular to a line of magnetic force of the tooth at a portion inserted into the opening when a coil is energized is larger than a cross-sectional area perpendicular to the line of magnetic force at a portion of the tooth stored in the coil,

wherein the tooth includes a first portion to be inserted into the opening, a second portion to be disposed in the coil, and a third portion to connect the first and second portions, and a length of the first portion in a direction perpendicular to the line of magnetic force is longer than a length of the second portion perpendicular to the line of magnetic force, and

wherein a height of a circumference of the opening of the yoke is equal to the height of the shoulder of the part of the tooth inserted into the opening.

12. (Previously presented) The dynamo-electric machine according to claim 11, further comprising a magnetic for a magnetic field.

13. (Previously presented) The dynamo-electric machine according to claim 12, wherein the tooth is laminated in parallel with a direction of magnetic flux of the magnet.

14. (Previously presented) The dynamo-electric machine according to claim 11, wherein the yoke is laminated in a direction different from a direction of a layer of the tooth.

15. (Currently amended) The dynamo-electric machine according to Claim 13, wherein the tooth is formed by laminating a plurality of steel plates ~~each including a first portion to be inserted into the opening and a second portion to be disposed in the coil, and a third portion to connect the first and second portions, and in that a length of the first portion in a direction perpendicular to the magnetic flux of the magnet is longer than a length of the second portion perpendicular to the magnetic flux of the magnet~~.

16. (Previously presented) The dynamo-electric machine according to Claim 13, wherein a plurality of teeth are provided, and the plurality of teeth are mounted to the yoke in a state in which the lines of magnetic force generated at respective portions of the plurality of teeth stored within coils when the coil is energized extend in parallel with each other.

17. (Currently amended) The dynamo-electric machine according to Claim 13, wherein the cross-sectional area perpendicular to the line of magnetic force generated at the plurality of teeth at the magnet-opposed end portion of the tooth which opposes the magnet when the coil is energized is ~~smaller than~~ equal to the cross-sectional area perpendicular to the line of magnetic force at the plurality of teeth disposed in the coil.

18. (Previously presented) The dynamo-electric machine according to Claim 1, wherein the magnetic field is in a cylindrical shape.

19. (Previously presented) The dynamo-electric machine according to Claim 7, wherein the magnetic field is in a cylindrical shape.

20. (Previously presented) The dynamo-electric machine according to Claim 13, wherein the magnetic field is in a cylindrical shape.